

```
def is_safe(arr, x, y, n):  
    for row in range(x):  
        if arr[row][y] == 1:  
            # Checking column attack  
            return False
```

```
    row = x
```

```
    col = y
```

```
    # Checking Diagonal Attack
```

```
    while row >= 0 and col >= 0:
```

```
        if arr[row][col] == 1:
```

```
            return False
```

```
        row -= 1
```

```
        col -= 1
```

```
    row = x
```

```
    col = y
```

```
    # Checking Anti Diagonal Attack
```

```
    while row >= 0 and col < n:
```

```
        if arr[row][col] == 1:
```

```
            return False
```

```
        row -= 1
```

```
        col += 1
```

```
    return True
```

```
def n_queen(arr, x, n):
```

```
    if x >= n:
```

```
    return True
```

```
for col in range(n):
```

```
    if is_safe(arr, x, col, n):
```

```
        arr[x][col] = 1
```

```
        if n_queen(arr, x + 1, n):
```

```
            return True
```

```
    arr[x][col] = 0
```

```
return False
```

```
def main():
```

```
    n = int(input("Enter the number of Queens: "))
```

```
    arr = [[0] * n for _ in range(n)]
```

```
    if n_queen(arr, 0, n):
```

```
        for i in range(n):
```

```
            for j in range(n):
```

```
                print(arr[i][j], end=" ")
```

```
            print()
```

```
    else:
```

```
        print("No solution exists for the given number of Queens.")
```

```
if __name__ == '__main__':
```

```
    main()
```